Claims:

1. A method for monitoring usage of resources in a plurality of elements each capable of communicating with a centralized management station, comprising the steps of:

computing in each of the elements, a localized value indicative of the usage, in said element, of said resources, and, responsive to said localized value, communicating a message to said central station, and

responsive to receipt or absence of receipt of said message in said centralized management station, obtaining information from at least another one of said elements indicative of the usage of said resources in said other element.

2. The method of claim 1, wherein said message includes said localized value.

3. The method of claim 2, wherein said method further includes the step of using the information from at least another one of said elements as well as said localized value to estimate the global usage of said resources in all of said elements.

4. The method of claim 1, wherein said localized value is indicative of the present usage of resources by said elements and said computing step includes comparing said localized value to a fixed threshold value.

5. The method of claim 1, wherein said localized value is indicative of the rate of change of usage of resources by said elements and said computing step includes comparing said localized value to a fixed threshold value.

6. The method of claim 1, further including the step of responsive to the results of said polling, adjusting the use of resources at one or more of said elements.

7. A method for monitoring usage of resources in elements in a network, comprising the steps of:

in each of the elements, (a) monitoring the usage of resources in said element to determine if resource usage exceeds a predetermined threshold, and (b) if the usage exceeds said threshold, sending a message to a central monitoring element; and

in said central monitoring element, responsive to receipt of said message from any of said elements, polling remaining ones of said elements to determine the actual use of resources in said elements.

8. A method for monitoring usage of resources in a plurality of elements each capable of communicating with a centralized management station, comprising the steps of:

asynchronous reporting of events when the resource usage in any of said elements deviates from a prescribed norm, and

a periodic polling of said network elements in response to an event generated in said asynchronous reporting step.

9. A technique for managing network elements in order to reduce the amount of monitoring related traffic, comprising the steps of

partitioning a global resource into a plurality of separate nodes,

assigning a fixed resource budget to each of the nodes,

when any of the nodes exceeds its budget, based upon local monitoring at that node, triggering a report in the node by sending a message to a central manager, and

responsive to receipt of said message in said central manager, issuing a global poll of all of the nodes in said network.

10. A technique for managing network elements in order to reduce the amount of monitoring related traffic, comprising the steps of

partitioning a global resource into a plurality of separate nodes,

assigning a budget to each of the nodes indicative of the maximum rate at which the usage of resources is permitted to change,

when the rate of change at which any of the nodes uses its resources exceeds its budget, based upon local monitoring at that node, triggering a report in the node by sending a message to a central manager, and

responsive to receipt of said message in said central manager, issuing a global poll of all of the nodes in said network.

11. The method defined in claim 8 wherein said network elements are routers switches and bridges and firewall devices.

12. The method defined in claim 8 wherein said network elements are application level elements such as servers, hosts, and layer 4-7 switches.